



Image

AF/2814

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Appellant:	D'Elia et al.	Examiner:	Peralta, G.
Appication No.:	09/575,349	Group Art Unit:	2814
Filed:	May 19, 2000	Docket No.:	AMDA.474PA
Title:	CVD Gas Injector And Method Therefor		

CERTIFICATE UNDER 37 C.F.R. 1.8: The undersigned hereby certifies that this communication is being deposited in triplicate, in the United States Postal Service, as first class mail, in an envelope addressed to: Mail Stop Appeal Brief - Patents, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450, on April 16, 2004.

By: Erin M. Nichols
Erin M. Nichols

REPLY BRIEF

Mail Stop Appeal Brief - Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This Reply Brief is submitted in response to the Examiner's Answer dated March 29, 2004, pursuant to 37 C.F.R. § 1.193 for the above-referenced patent application. The Brief is accordingly being filed in triplicate. Appellant respectfully submits that the Examiner's Answer has raised several new grounds of rejection including new arguments and new interpretations of the prior art of record. However, 37 C.F.R. § 1.193 states that, "An examiner's answer must not include a new ground of rejection." Appellant respectfully submits that this Reply Brief be entered and that the Examiner's new grounds of rejection be set aside in considering the merits of the instant appeal. The issues raised in the Examiner's Answer, including the new grounds of rejection, are addressed below.

I. ISSUES AND ARGUMENTS

A. New Grounds of Correspondence Cited For Rejecting Claims 18-30

In the "Grounds of Rejection" portion of the Examiner's Answer at pages 3-8, the Examiner for the first time cites new grounds of correspondence by asserting that Figure 15 of the *Okumura* reference shows a second system that corresponds to the claimed invention. A review of the final Office Action dated June 24, 2003, does not disclose any assertion of or reliance on Figure 15 of *Okumura* as corresponding to the claimed invention, or even an attempt to support such teaching.

Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

B. New Grounds of Correspondence Cited For Rejecting Claims 20 and 21 Under § 102(b)

On page 4 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence by asserting that the *Okumura* reference teaches supplying gas in different quantities through the use of an electric field. A review of the final Office Action dated June 24, 2003, does not disclose any assertion of the *Okumura* reference teaching "by creating a non-uniform electric field," or even an attempt to support such teaching. The Examiner also cites for the first time column 5, lines 39-47 of *Okumura* as teaching an alternative arrangement. Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

C. New Grounds of Correspondence Cited For Rejecting Claims 22-25 Under § 103(a)

On page 6 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence to assert that the *Jeng* reference teaches using ammonia and dichlorosilane and the deposition of an anti-reflective coating as claimed. A review of the final Office Action dated June 24, 2003, does not disclose any assertion of the *Jeng* reference teaching "wherein the use of ammonia and dichlorosilane and the deposition of an antireflective coating are performed by a CVD arrangement for the disclosed intended purpose of providing a smooth surface that improves the accuracy of the patterning steps," or even an attempt to support such teaching. Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

D. New Grounds of Motivation Cited For Rejecting Claims 22-25 Under § 103(a)

On page 6 of the Examiner's Answer, the Examiner for the first time cites new grounds of motivation to combine the *Jeng* and *Okumura* references to improve patterning accuracy. A review of the final Office Action dated June 24, 2003, does not disclose any assertion of motivation in connection with providing "a smooth surface that improves the accuracy of the patterning steps," or even an attempt to support such teaching. Because this alleged rationale was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

E. New Citation as Grounds of Correspondence For Rejecting Claims 18-30

On page 8 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence by citing column 4, lines 62-64 of the *Okumura* reference, and arguing that this cited portion teaches etching uniformly on the surface of each wafer. A review of the final Office Action dated June 24, 2003, does not disclose any reference to column 4, lines 62-64, or any assertion that the above-cited portion of the *Okumura* reference teaches limitations found in, for example, claim 18 such as, "a uniform supply of gas to the surface of a wafer, the surface being in a zone of the CVD arrangement that exhibits a depleted gas supply absent the injector means." Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

F. New Citation as Grounds of Correspondence For Rejecting Claims 18-30

On page 9 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence by asserting that Figure 14 of the *Okumura* reference shows a depleted gas supply zone that will be formed if one of the injectors is absent. A review of the final Office Action dated June 24, 2003, does not disclose any assertion of or reliance on Figure 14 of *Okumura* as corresponding to the claimed invention, or even an attempt to support such teaching. Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

G. New Citation as Grounds of Correspondence For Rejecting Claims 18-30

On pages 10 and 12 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence by citing column 10, lines 24-33 of the *Okumura* reference, and arguing that this cited portion teaches uniform dispersion of gas in the wafer zone. A review of the final Office Action dated June 24, 2003, does not disclose any reference to column 10, lines 24-33, or any assertion that the above-cited portion of the *Okumura* reference teaches limitations found in, for example, claim 18 such as, "injector means for supplying a uniform supply of gas to the surface of a wafer." Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

H. New Citation as Grounds of Correspondence For Rejecting Claims 18-30

On pages 10 and 12 of the Examiner's Answer, the Examiner for the first time cites new grounds of correspondence by citing column 5, lines 1-9 of the *Okumura* reference, and arguing that

this cited portion teaches that reactive gas is uniformly introduced onto the to-be-treated wafer surfaces. A review of the final Office Action dated June 24, 2003, does not disclose any reference to column 5, lines 1-9, or any assertion that the above-cited portion of the *Okumura* reference teaches limitations found in, for example, claim 18 such as, “injector means for supplying a uniform supply of gas to the surface of a wafer.” Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.

I. New Citation as Grounds of Correspondence For Rejecting Claims 18-30

On page 10 of the Examiner’s Answer, the Examiner for the first time cites new grounds of correspondence by citing Figure 8 injectors 42 and 47 of the *Okumura* reference, and arguing that the injectors would uniformly supply gas to the surfaces the wafers. A review of the final Office Action dated June 24, 2003, does not disclose any reference to injectors 42 and 47, or any assertion that the above-cited portion of the *Okumura* reference teaches limitations found in, for example, claim 18 such as, “injector means for supplying a uniform supply of gas to the surface of the wafer.” Because this alleged rationale and evidence was not introduced previously, according to 37 C.F.R. § 1.193, Appellant submits that the argument should be removed.


II. CONCLUSION

Appellant respectfully requests that the rejections be removed, and that the Examiner enter this Reply Brief identifying and addressing the new grounds of rejection. In view of the foregoing, Appellant believes the claimed invention to be patentable over the cited references because the references cited, either alone or modified, do not render obvious Appellant’s claimed invention.

Please charge Deposit Account No. 01-0365 (TT4037) if it is believed that additional fees are necessary in connection with the filing of this Reply Brief.

Respectfully submitted,

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